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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/791,282	03/03/2004	Ichiro Aoshima	SE-US035160	8930

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EXAMINER

SUN, XIUQIN

ART UNIT PAPER NUMBER

2863

DATE MAILED: 05/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/791,282	Applicant(s) AOSHIMA ET AL.	
	Examiner Xiuqin Sun	Art Unit 2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 14-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14-16 and 22-33 is/are allowed.
- 6) ☒ Claim(s) 1, 17- 20 is/are rejected.
- 7) ☒ Claim(s) 2-9, 19 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>01/25/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 17 and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Unuma et al. (U.S. Pat. No. 6571193).

With respect to claim 1:

Unuma et al. teach a body motion detection device configured to be attached to a forearm of a human body to detect a body motion of the human body (col. 7, lines 43-55), comprising: a body motion sensor unit configured and arranged to detect an acceleration caused substantially by a movement of the forearm during walking and an acceleration caused substantially by a movement of the forearm during running to output at least one body motion signal (col. 8, lines 19-32); and a body motion component extracting section configured and arranged to extract a body motion component from said at least one body motion signal (col. 10, lines 13-36; col. 11, lines 47-57).

With respect to claim 17:

Unuma et al. teach a method of detecting a body motion of a human body (col. 7, lines 43-55), comprising: performing a body motion signal outputting process for detecting an acceleration caused substantially by a movement of a forearm during walking and an acceleration caused substantially by a movement of the forearm during running to output at least one body motion Signal (col. 8, lines 19-32); and performing a body motion component extracting process for extracting a body motion component from said at least one body motion signal (col. 10, lines 13-36; col. 11, lines 47-57).

With respect to claim 18:

Unuma et al. teach: regarding claim 18, said body motion signal outputting process includes detecting the acceleration caused substantially by the movement of the forearm during walking to output a first body motion signal and detecting the acceleration caused substantially by the movement of the forearm during running to output a second body motion signal (col. 8, lines 19-32), and said body motion component extracting process includes performing a first frequency analyzing process for executing a frequency analysis of said first body motion signal (col. 10, lines 13-36; Fig. 3), performing a second frequency analyzing process for executing a frequency analysis of said second body motion signal (col. 10, lines 13-36; Fig. 3), and performing a reference wave determining process for determining a reference wave for extracting said body motion component based on results of the frequency analysis from said first and second frequency analysis processes (col. 10, lines 13-65; col. 11, lines 47-57; Fig. 3).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Unuma et al. in view of Nissila (U.S. Pat. No. 6418181).

With respect to claim 20:

Unuma further teaches: said body motion signal outputting process includes detecting the acceleration caused substantially by the movement of the forearm during walking to output a first body motion signal and detecting the acceleration caused substantially by the movement of the forearm during running to output a second body motion signal (col. 10, lines 13-36), and said body motion component extracting process includes performing a first frequency analyzing process for executing a frequency analysis of said first body motion signal (col. 10, lines 13-36; col. 11, lines 47-57; Fig. 3); performing a second frequency analyzing process for executing a frequency analysis of said second body motion signal (col. 10, lines 13-36; col. 11, lines 47-57; Fig. 3); and performing a reference wave determining process for determining a reference wave for extracting a body motion component based on results of the frequency analysis from said first and second frequency analyzing processes (col. 10, lines 13-36; col. 11, lines 47-57).

Unuma does not mention expressly: performing an amplifying process for creating an amplified first body motion signal by amplifying said first body motion signal by a prescribed amplification rate before executing a frequency analysis of said signal.

Nissila discloses a method and measuring arrangement for determining speed of runner, walker or another moving and living object (see Abstract), and teaches: performing an amplifying process (22, 42) for creating an amplified body motion signal by amplifying said body motion signal by a prescribed amplification rate before executing a frequency analysis of said amplified signal (Figs. 3 and 4; cols. 3-4, lines 66-2; col. 4, lines 22-30; col. 9, lines 14-22).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teaching of Nissila in the invention of Unuma in order to provide a mechanism for picking up the desired signal and filtering out undesired signal accurately and effectively (Nissila, cols. 3-4, lines 66-2; col. 4, lines 22-30; col. 9, lines 14-22).

Allowable Subject Matter

5. Claims 2-9, 19 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
6. Claims 14-16 and 22-33 are allowed.

Reasons for Allowance

7. The following is an examiner's statement of reasons for allowance:

Please see previous Office Action mailed 12/23/2005 for the reasons for allowable subject matter of claims 2-9, 14-16 and 21-33.

The primary reason for the allowance of claim 19 is the inclusion of the limitations of performing an integrating process for creating an integrated body motion signal by integrating said first and second body motion signals, and performing a frequency analyzing process for executing a frequency analysis of said integrated body motion signal. It is this limitation found in each of the claims, as it is claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes this claim allowable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

8. Applicant's arguments received 03/20/06 with respect to claims 1, 17, 18 and 20 have been considered but are moot in view of the new ground(s) of rejection.

Claims 1, 17 and 18 are rejected as new prior art reference, U.S. Pat. No. 6571193 to Unuma et al., has been found to teach the claimed invention. Detailed response is given in section 2 as set forth above in this Office Action.

Claim 20 is rejected as new prior art references, U.S. Pat. No. 6418181 to Nissila together with the Unuma patent, have been found to teach the claimed invention. Detailed response is given in section 4 as set forth above in this Office Action.

Prior Art Citations

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1) Townsend et al. (U. S. Pat. No. 6834436) is entitled "Posture and body movement measuring system".

2) Kubo et al. (U. S. Pub. No. 20020089425) is entitled "Body motion detector".

Contact Information

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xiuqin Sun whose telephone number is (571)272-2280. The examiner can normally be reached on 6:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571)272-2269. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2863

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

XS
May 15, 2006


MICHAEL NGHIE
PRIMARY EXAMINER

Xiuqin Sun
Examiner
Art Unit 2863